

## Patient Care Documentation Systems An Overview

### A. Background

The Public Health Nursing Directors of Washington are considering the development of a standardized patient care documentation system that can be used at the local health department level to track the work done by public health nurses and other health care providers such as social workers and therapists. The system would capture individual case management information including health problems, provider interventions and outcomes using a standardized vocabulary. Since public health interventions occur in many settings including clinics, homes, schools and child care facilities, and involve family members as well as the individual patient, the vocabulary must allow incorporation of these factors. The system would also need to fit into public health districts that have varying capabilities and resources both in terms of workforce computer skills and information systems (IS) expertise and equipment.

### B. Standardized Language

There appear to be two choices for a standardized language within the proposed system: Omaha System (OS) and the University of Iowa's Nursing Interventions Classification (NIC) and Nursing Outcomes Classification (NOC), linked with the North American Nursing Diagnosis Association (NANDA) taxonomy of nursing diagnoses. Below is a discussion of how they compare with regard to key criteria mentioned by the directors:

1. Standard for public health: As of 2002, the ANA recognizes 12 nursing languages, so there is no one standard. Of the 12, NANDA/NIC/NOC has the most data elements and is applicable in all settings, from acute care to home care. The APHA workgroup on a standardized vocabulary for Public Health Nursing feels that no vocabulary adequately reflects public health nursing. Specifically, the workgroup did not feel that the vocabularies "are not easily used to characterize problems at the community or systems level or interventions such as working with coalitions to reduce teen smoking or developing media campaigns. They will be working on developing this vocabulary and then working it into an established vocabulary. They are looking at the two mentioned above as well as the Home Health Care Classification.
2. Use in public health departments: Both the OS and NIC/NOC have been used in public health departments. However, the OS is the only one where there is published information about its use in a patient outcomes management model (Monsen and Martin; Kaiser; Cohen et al.). The OS is also the only one being used by health departments with an electronic record; these departments include Riverside County, California, Washington County, Minnesota and Indianapolis, Indiana. The State of Maine will also be implementing an electronic record using the OS.

Indianapolis evaluated both languages before deciding on the OS. The reasons they chose OS was that this system was most frequently discussed at national conferences, they had already had exposure to the system from an earlier review of the Nightingale Tracker, a handheld documentation device that uses OS, and they did not see that NANDA/NIC/NOC offered any strong advantages. Although their implementation has been more difficult than they thought, they are happy with their choices (Nancy Keefe, personal communication). Washington County was looking for nursing documentation software first and found CareFacts, which uses OS. They, too, are happy with their choice (Monsen and Martin).

Riverside started working on a nursing documentation system in 2000. At that time, they started using NIC/NOC because Orange County Public Health had been using that system. They devised a pilot project that began in March 2001; it was halted two weeks later because of the difficulties using NIC/NOC. The two issues they had with NANDA/NIC/NOC were a) the linkages between the three languages were not tight; and b) the problems, interventions and outcomes did not translate very well to public health. As a result, nurses were writing very long narratives to describe their work, defeating the purpose of a common language to allow quantification of interventions and outcomes.

After the pilot, Riverside started over and decided to look at the Omaha System. They began by collectively documenting cases using OS in order to learn the system. They had Karen Martin come out and talk with them. They chose the software package from Champs and have just started implementation. To date, there is a great deal of excitement about the system (Judy Riemer, personal communication).

3. Multidisciplinary use: Both languages can be used by any provider. However, the OS was developed with this as a criteria. The OS was developed by the Visiting Nurses of Omaha which was, at the time, part of the health department. The director wanted a system that could be used by providers no matter which discipline or community location. NANDA/NIC/NOC was developed with the hospital setting in mind and community interventions were only added in the second and third editions.

4. Available software: Several vendors have electronic records that can use either vocabularies including McKesson and Ergo Partners. These products, however, are closer to an electronic medical record and need to be adapted to be used in a community environment. In addition, the OS group only link to CareFacts and Champs, which use OS in the way the developers intended. Both CareFacts and Champs are currently in public health departments. According to Judy Riemer in Riverside, all the public health departments she interviewed were happy with their choice of software, regardless of whether it was Champs or CareFacts. Riverside chose Champs for the cost; both systems had about equal benefits.

5. Customization of the software: According to Karen Martin, a consultant on the Omaha System, both CareFacts and Champs do allow some customization. Both vendors also work well with the localities' IS people (Karen Martin, direct

communication, 2/03). Ms. Martin does state that since one of the principal benefits of a standardized language and outcomes management program is to provide comparability between patient groups and across sites, too much customization defeats the purpose.

6. Training opportunities: Both languages have annual meetings with presentations by users and software. There are textbooks available for both. Consultants are available to train personnel in the development use of the software

#### D. Recommendations

1. Language: At this time, the Omaha System appears to be the best choice. There are documented public health departments using this system now. The departments varying in size and computer capabilities, reflecting the situation in Washington State.

2. Software: If the Omaha System is chosen, then the two software options are CareFacts and Champs. The best way to assess which to use would be to attend the OS annual meeting in April to look at the software and hear presentations by users of both. Both systems seem to meet public health users needs.

3. Technical Assessment: Everyone interviewed for this paper recommended that IS people be part of the assessment and decision regarding the software. In Indianapolis, IS involvement was farther into the project and resulted in delays. In addition, there should be an assessment of the computers in the departments to make sure they can handle the software.

4. Workforce Assessment: Another issue for some departments was that some of the workforce was not computer literate so they had to do some basic computer training. This may not be an issue in the health departments here but it is something to assess.

5. Training: Everyone polled stated that it was important to train on the language first before the software. The best way to train is to use case studies and collectively document it using OS. Riverside did this before they even got their software.

6. Consultants: If the OS is chosen, it would be beneficial to bring in Karen Martin to consult on implementation as soon as possible. She was highly recommended by all sites. Maine was glad they called her in at the beginning of their project because she helped them avoid pitfalls. Riverside wished they called her in sooner.

7. User Conference: The OS user conference would be very helpful. The software vendors will be there and the public health departments interviewed will be there.

## **Documentation Systems for Public Health Nursing Background Literature**

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